

APPENDIX A
“Clean” Version Without Amended/New Indications
37 C.F.R. § 1.121(b)(1)(iii) AND (c)(3)

CLAIMS:

1. A process for producing a monolithic ceramic electronic component, which comprises:

forming a ceramic paste by

dispersing a first mixture comprising ceramic powder and a first organic solvent in the absence of an organic binder to provide a primary dispersion,

dispersing a second mixture comprising an organic binder and the primary dispersion to provide a secondary dispersion,

wherein a second organic solvent having a relative evaporation rate lower than that of the first organic solvent is incorporated into at least one of the first mixture and the second mixture,

and selectively removing the first organic solvent from the second mixture;

forming a plurality of composite structures by shaping a ceramic slurry to form a ceramic green sheet having a main surface, applying said conductive paste onto the main surface of the ceramic green sheet so as to provide step-like sections of an internal circuit element film, and applying a ceramic paste onto the region on the main surface of the sheet on which the element film are not formed so as to substantially compensate for the spaces defined by the step-like sections and form a ceramic green layer;

forming a green laminate by laminating a plurality of the composite structures; and
firing the green laminate.

2. A process for producing a monolithic ceramic electronic component according to claim 1, wherein the first mixture comprises an organic dispersant.

3. A process for producing a monolithic ceramic electronic component according to claim 2, wherein the organic dispersant is about 0.1 to 5 wt. % based on the ceramic powder.

4. A process for producing a monolithic ceramic electronic component according to claim 1, wherein the first organic solvent has a relative evaporation rate of at least about 100 at 20°C, and the second organic solvent has a relative evaporation rate of less than about 50 at 20°C.

5. A process for producing a monolithic ceramic electronic component according to claim 4, wherein the first organic solvent has a relative evaporation rate of at least about 150 at 20°C.

6. A process for producing a monolithic ceramic electronic component according to claim 1, wherein the forming of the ceramic paste further comprises filtering the secondary dispersion before the removal of the first solvent.

7. A process for producing a monolithic ceramic electronic component according to claim 6, wherein the organic binder is dissolved in at least one of the first organic solvent and the second organic solvent to thereby form an organic vehicle; and the organic vehicle is filtrated.

8. A process for producing a monolithic ceramic electronic component according to claim 1, wherein the first organic solvent has a boiling point lower than that of the second organic solvent.

9. A process for producing a monolithic ceramic electronic component according to claim 8, wherein difference between the boiling point of the first organic solvent and that of the second organic solvent is about 50°C or more.

10. A process for producing a monolithic ceramic electronic component according to claim 9, wherein the boiling point of the second organic solvent is at least about 150°C.

11. A process for producing a monolithic ceramic electronic component according to claim 1, wherein the ceramic slurry and ceramic paste each comprises a ceramic powder of substantially the same composition.

12. A process for producing a monolithic ceramic electronic component according to claim 1, wherein the ceramic powder contained in each of the ceramic slurry and the ceramic paste is a dielectric ceramic powder.

13. A process for producing a monolithic ceramic electronic component according to claim 12, wherein the internal circuit element films are arranged so as to form internal electrodes and to provide capacitance between a pair of electrodes, and the monolithic ceramic electronic component is a monolithic ceramic capacitor after firing the green laminate.

14. A process for producing a monolithic ceramic electronic component according to claim 1, wherein the ceramic powder contained in each of the ceramic slurry and the ceramic paste is a magnetic ceramic powder.

15. A process for producing a monolithic ceramic electronic component according to claim 14, wherein the internal circuit element films are curved and disposed so as to form a monolithic inductor when the green laminate is fired.

17. A process for producing a ceramic paste, which comprises:
dispersing a first mixture comprising ceramic powder and a first organic solvent in the absence of an organic binder to provide a primary dispersion;
dispersing a second mixture comprising an organic binder and the primary dispersion to provide a secondary dispersion;
wherein a second organic solvent having a relative evaporation rate lower than that of the first organic solvent is incorporated into at least one of the first mixture and second mixture; and
removing the first organic solvent from the second mixture.

18. A process for producing a ceramic paste according to claim 17, wherein the first organic solvent has a relative evaporation rate of at least about 100 at 20°C, and the second organic solvent has a relative evaporation rate of less than about 50 at 20°C.

19. A process for producing a ceramic paste according to claim 17, wherein the first organic solvent has a boiling point lower than that of the second organic solvent.